Appl No. 09/693,019   APP 1204
Amdt. Dated September 20, 2004
Reply to Final Rejection of July 09, 2004

Listing of Claims

Claim 1 (cancelled)

Claim 2 (currently amended) In a network adapted to support mobility and having a plurality of nodes and mobile stations, a method for forwarding transient data packets from a corresponding host node in a first SIP-compliant network environment to a mobile station, said mobile station having traveled from said first compliant SIP- compliant network environment to a second SIP-compliant network environment, said method comprising:

reinviting said corresponding host node to said mobile station using SIP INVITE, said mobile station being in s aid second SIP-compliant network environment;

creating a tunnel between a first edge router and controller located within said first SIP-compliant network environment and a second edge router and controller within said second SIP-compliant network environment using by sending a SIP request message containing a SIP method from the second edge router and controller to the first edge router and controller ;

forwarding said transient data packets to said mobile stations via said tunnel; and

discontinuing said forwarding of said transient data packets via said tunnel to said mobile station after a time out period.

Claim 3 (currently amended) For use in a SIP-compliant network having a plurality of nodes and mobile stations, a SIP-EYE Agent for monitoring and tracking all TCP connections of the mobile stations and recording their identifiers in a computer readable medium within a mobile station, said SIP-EYE Agent comprising a record of each being a computer readable medium with executable instructions to monitor session set up and disconnect messages of said TCP connections ,each record and to create and keep a data structure for each of said TCP connections within the computer readable medium of each mobile station, each data structure having associated therewith:

(a) an original IP address of said mobile station,

(b) a previous IP address of said mobile station,

(c) a current IP address of said mobile station, and

(d) an original IP address of a corresponding host node;

wherein said original IP address of said mobile station is the IP address of said mobile station at the beginning of the TCP connection, said previous IP address of said mobile station is the last IP address just before the current IP address of said mobile station, and

Page 4

Appl No. 09/693,019   APP 1204
Amdt. Dated September 20, 2004
Reply to Final Rejection of July 09, 2004

said original IP address of said corresponding host node is the IP address of said corresponding host node at the beginning of the TCP connection.

Claim 4 (currently amended) In a SIP-compliant net work having a plurality of nodes and mobile stations, a method for reducing the amount of time a mobile node has to register and configure itself in a visiting environment, said method comprising:

adding a registration or hand off option to a designating an additional option for the CONTACT field of the SIP REGISTER method, which option indicates registration or hand-off; and

equipping a SIP registrar node with a DHCP client node and co locating said registrar node with a DHCP server node to enable said SIP registrar node to assign an IP address to said mobile station thereby reducing acquisition time.

Claim 5 (previously amended) A method according to claim 4 further comprising replicating a profile of sad mobile station in said visiting environment to reduce said authentication time of said mobile station.

Claim 6 (cancelled)

Claim 7 (cancelled)

Claim 8 (currently amended) A computer-readable medium having computer executable instructions for performing a method to be executed in a network adapted to support mobility having a plurality of nodes and a mobile stations; said method for forwarding transient data packets from a corresponding host node in a first SIP-compliant network environment to a mobile station, said mobile station having traveled from said first SIP-compliant network environment to a second SIP compliant network environment, said method comprising:

reinviting said corresponding host node to said mobile station using SIP INVITE, said mobile station being in said second SIP-compliant network environment;

creating a tunnel between a first edge router and controller located within said first SIP-compliant network environment and a second edge router and controller located within said second SIP-compliant network environment using by sending a IP request message containing a SIP INFO method from the second edge router and controller to the first edge router and controller ;

forwarding said transient data packets to said mobile station via said tunnel; and

discontinuing said forwarding of said transient data packets via said tunnel to said mobile station after a time-out period.

Page 5

Claim 9 (currently amended) A computer-readable medium having computer-executable instructions for performing a method to be executed in a SIP-compliant network having a plurality of nodes and mobile stations, said method for reducing the amount of time a mobile station takes to register and configure itself in a visiting environment and comprising;

~~adding a registration or hand-off option to a~~ designating an additional option for the CONTACT field of the SIP REGISTER method ,which option indicates registration or hand-off; and

equipping a SIP registrar node with a DHCP client node and co locating said SIP registrar node with a DHCP server node to enable said registrar node to assign an IP address to said mobile station thereby reducing IP address acquisition time.

Claim 10 (currently amended) A computer-readable medium having computer-executable instructions for performing a method according to claim 9, said method further comprising replicating a profile of said mobile station in said visiting environment to reduce said authentication time of said mobile station.

Claim 11 (cancelled)

Claim 12 (cancelled)

Claim 13 (currently amended) A system for forwarding transient data packets addressed to a mobile station from a corresponding host node in a first SIP-compliant net work environment, said mobile station having traveled from said first SIP-compliant network environment to a second SIP-compliant network environment, said ~~method~~ system comprising:

a ~~processor programmed~~ computer readable medium having executable instructions to:

reinvite said corresponding host node to said mobile station using SIP INVITE, said mobile node being in said second SIP-compliant network environment;

create a tunnel between a first edge router and controller located within said first SIP-compliant network environment and a second edge router and controller located within said second SIP-compliant network environment ~~using~~ by sending a SIP request message containing a SIP INFO method from the second edge router and controller to the first edge router and controller ;

forward said transient data packets to said mobile station via said tunnel; and

discontinue said forwarding of said data packets to said mobile station after a time-out period.

Claim 14 (currently amended) A system for reducing the amount of time a mobile station takes to register and configure itself in a visiting SIP-compliant network environment, comprising

a ~~processor-programmed~~ computer readable medium having executable instructions to:

~~add a registration or hand-off option to a~~ designate an additional option for the CONTACT field of the SIP REGISTER method , which option
indicates registration or hand-off; and

equip a SIP register node with a DHCP client node and co locating said SIP registrar node with a DHCP server node to enable said SIP registrar node to assign an IP address to said mobile station thereby reducing acquisition time.

Claim 15 (currently amended) A system according to claim 14 wherein said ~~processor is~~ executable instructions further ~~programmed to~~ replicate a profile of said mobile station in said visiting environment to reduce authentication time of said mobile station.

Page 7